

PATENT CLAIMS

1. A retrovirus vector that is capable of transducing cells in a G₀ phase, whereby the vector is derived from a SIVsmmPBj14 virus.
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2. The retroviral vector according to claim 1, whereby the vector is further capable of transducing cells in a mitotic phase and/or a G₁ phase.
3. The retroviral vector according to claim 1 or 2, whereby part of or the entirety of a
10 SIVsmmPBj14 *env* gene is deleted.
4. The retroviral vector according to claim 3, whereby the deletion of the SIVsmmPBj14 *env* gene is in the SU range.
- 15 5. The retroviral vector according to any of claims 1 to 4, whereby the vector is a pseudotype vector.
6. The retroviral vector according to any of claims 1 to 5, comprising a part of or the entirety of an envelope protein of a virus other than the SIVsmmPBj14 virus.
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7. The retroviral vector according to claim 6, whereby the virus is selected from HIV-1, SIVagm, SNV, MLV or VSV.
8. The retroviral vector according to claim 6, whereby the envelope protein is the G-
25 protein of VSV.
9. A method for making pseudotype vectors, comprising the steps of:
 - a) deleting a part of or the entire *env* gene of a SIVsmmPBj14 virus or a
30 molecular clone thereof; and

b) cotransfecting cells with the construct of a) and an expression construct for an envelope protein, whereby the envelope protein is derived from a virus other than the SIVsmmPBj14 virus.

- 5 10. The method according to claim 9, whereby deleting the *env* gene renders the envelope protein nonfunctional.
11. The method according to claim 9 or 10, whereby the cells are 293T cells.
- 10 12. The method according to any of claims 9 to 11, whereby the virus is selected from HIV-1, SIVagm, SNV, MLV or VSV.
13. The method according to any of claims 9 to 11, whereby the envelope protein is the G-protein of VSV.
- 15 14. A pseudotype vector according to the method of any of claims 9 to 13.
15. Use of a vector according to any of claims 1 to 8 or 14 for transducing cells in the G₀ phase.
- 20 16. Use according to claim 15, whereby the mammalian cells are human lymphocytes.
17. Use according to claim 15 or 16, whereby the cells in the G₀ phase are activated or nonactivated.
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